KENWOOD

GRAPHIC EQUALIZER

GE-560

INSTRUCTION MANUAL

KENWOOD CORPORATION

When you play a music source while this unit is connected to your system, always turn the power of this unit ON regardless of whether you use the graphic equalizer functions or not. (The audio signal reproduced by the source playback component is sent to the amplifier by passing through this unit. Therefore, the music source cannot be listened to unless the power of this unit is ON.)

B60-0982-00 (JA) (E, T, M, X,) [G]
92/12 11 10 9 8 7 6 5 4

Introduction

Your choice of this product indicates that you are a devotee to excellence in sound reproduction.
We appreciate your patronage and take pride in the long tradition of quality components that our company represents.
So that you can get the most out of your unit, we suggest that you take the time to read through this manual before you hook up and operate your system. This will acquaint you with operating features and system-connection considerations so that your listening pleasure will be enhanced right from the start.
You will notice that in all aspects of planning, engineering, styling, operating convenience and adaptability we have sought to anticipate your needs and desires.
Keep this manual handy for future reference.

For your records

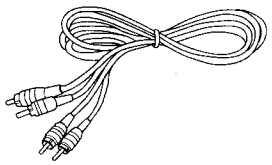
Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your dealer for information or service on this product.
Model _____ Serial Number _____

Unpacking

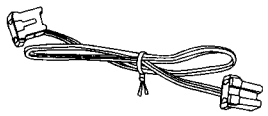
Unpack the unit carefully and make sure that all accessories are put aside so they will not be lost.
Examine the unit for any possibility of shipping damage. If your unit is damaged or fails to operate, notify your dealer immediately. If your unit was shipped to you directly, notify the shipping company without delay. Only the consignee (the person or company receiving the unit) can file a claim against the carrier for shipping damage.
We recommend that you retain the original carton and packing materials for use should you transport or ship the unit in the future.

Accessories

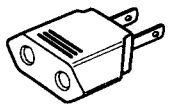
Audio cord 2



System control cord 1



AC plug adaptor 1
(except for U.K., Australia and Europe)
For the unit with a European AC plug in areas other than Europe.



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Befere applying pewer

⚠ **Caution: Read this page carefully to onsuro safe oporation.**

For the U.S.A. and Canada

Important!

Units shipped to the U.S.A. and Canada are designed for operation on 120 volts AC only.

CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THE AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

For the United Kingdom

Important!

Units shipped to the U.K. are designed for operation on 240 volts AC only.

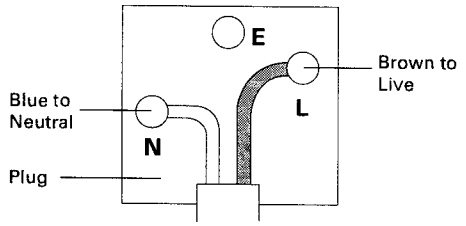
The mains plug must be removed from the wall socket prior to any internal examination.

The wires in this mains lead are coloured in accordance with the following code:

Blue ..... Neutral
Brown ..... Live

The wires in this mains lead must be connected to the terminals in the plug as follows:

Wire celeur	**Plug terminal marking**
Blue	N or Black
Brown	L or Red



Notes:
1. If a 13-amp plug is used, this must be fitted with a 5-amp fuse.
2. If a 3-pin plug with earthing contact is used, no wire must be connected to the E terminal.

For Australia and Europe

Important!

Units shipped to Australia are designed for operation on 240 V AC only.

Units shipped to Europe are designed for operation on 230 V AC only.

For other countries

Important!

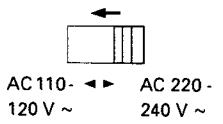
Units shipped to countries other than the above countries are equipped with an AC voltage selector switch on the rear panel. Refer to the following paragraph for the proper setting of this switch.

AC voltage selection

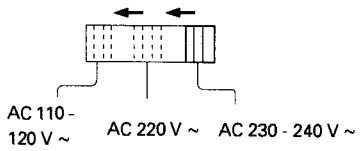
This unit operates on 110 - 120 or 220 - 240 volts AC. The AC voltage selector switch Type A or Type B on the rear panel is set to the voltage that prevails in the area to which the unit is shipped. Before connecting the power cord to your AC outlet, make sure that the setting position of this switch matches your line voltage. If not, it must be set to your voltage in accordance with the following direction.

AC voltage seloctor switch

Type A



Typo B



Move switch lever to mateh your line voltage with a small screwdriver or other pointed tool.

Note:
Qur warranty does not cover damage caused by excessive line voltage due to improper setting of the AC voltage selector switch.

Safety precautiens

WARNING: TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE, REFER SERVICING TO OUALIFIED SERVICE PERSONNEL.
⚡	THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL, WITHIN AN EOUILATERAL TRIANGLE, IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOL-TAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.
!	THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.

IMPGRTANT SAFEGUARDS

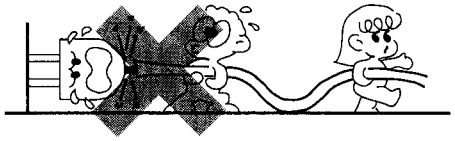
⚠ **Caution: Read this page carefully to ensure sefe operation.**

Please read all of the safety and operating instructions before operating this unit. For best results, follow all warnings placed on the unit and adhere to the operating and use instructions. These safety and operating instructions should be retained for future reference.

1. **Power sources** – The unit should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

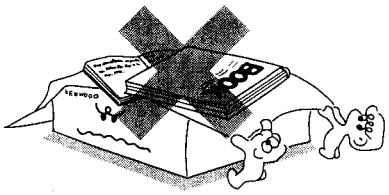
2. **Power-cord protection** – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the unit.

Never pull or stretch the cord.

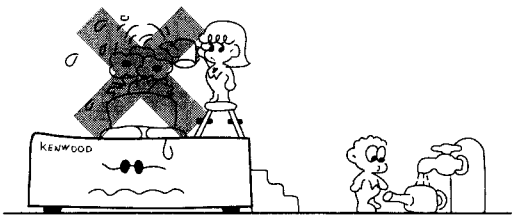


3. **Grounding or polarization** – The precautions should be taken so that the grounding or polarization means of this unit is not defeated.

4. **Ventilatien** – The unit should be situated so that its location or position does not interfere with its proper ventilation.
To maintain good ventilation, do not put records or a table-cloth on the unit. Place the unit at least 10 cm away from the walls.
Do not use the unit on a bed, sofa, rug or similar surface that may block the ventilation openings.

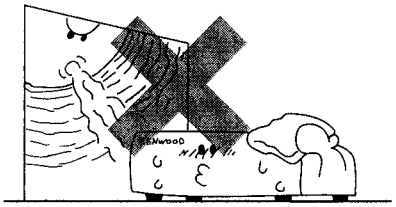


5. **Water and moisture** – The unit should not be used near water - for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

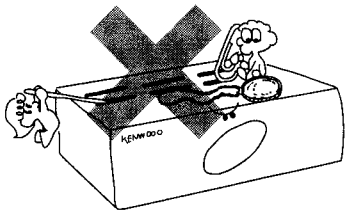


6. **Temperature** – The unit may not function properly if used at extremely low, or freezing temperatures. The ideal ambient temperature is above +5°C (41°F).

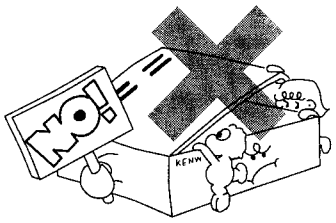
7. **Heat** – The unit should be situated away from heat sources such as radiators, heat registers, stoves, or other units (including amplifiers) that produce heat.



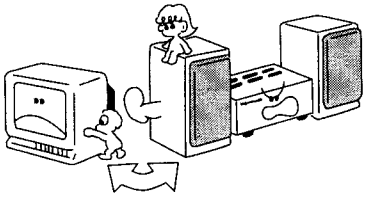
8. **Electric shock** – Care should be taken so that objects do not fall and liquid is not spilled into the enclosure through openings. If a metal object, such as a hair pin or a needle, comes into contact with the inside of this unit, a dangerous electric shock may result. For families with children, never permit children to put anything, especially metal, inside this unit.



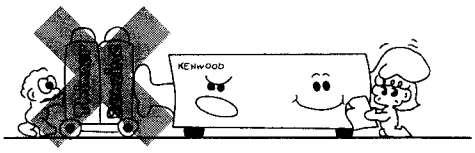
9. **Enclosure removal** – Never remove the enclosure. If the internal parts are touched accidentally, a serious electric shock might occur.



10. **Magnetic fields** – Keep the unit away from sources of magnetic fields such as TV sets, speaker systems, radios, motorized toys or magnetized objects.



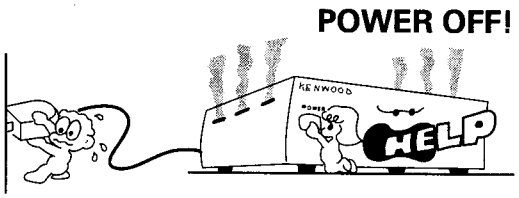
11. **Cleaning** – Do not use volatile solvents such as alcohol, paint thinner, gasoline, or benzine, etc. to clean the cabinet. Use a clean dry cloth.



12. Carts and stands – An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

13. Nonuse periods – The power cord of the unit should be unplugged from the outlet when left un-used for a long period of time.

14. Abnormal smell – If an abnormal smell or smoke is detected, immediately turn the power OFF and pull out the power cord. Contact your dealer or nearest service center.



15. Damage requiring service – The unit should be serviced by qualified service personnel when:

A. The power-supply cord or the plug has been damaged; or

B. Objects have fallen, or liquid has been spilled into the unit; or

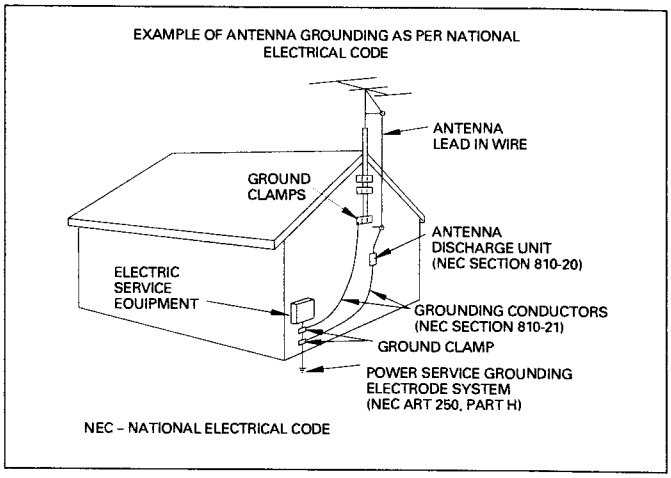
C. The unit has been exposed to rain; or

D. The unit does not appear to operate normally or exhibits a marked change in performance; or

E. The unit has been dropped, or the enclosure damaged.

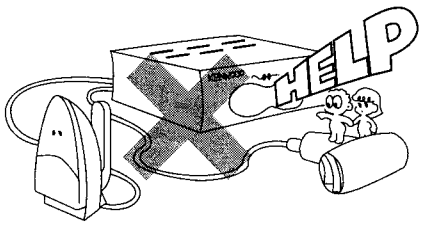
18. Servicing – The user should not attempt to service the unit beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

17. Outdoor antenna grounding – If an outside an tenna is connected to the receiver, be sure the an-tenna system is grounded so as to provide some protection against voltage surges and built up static charges. Section 810 of the National Electrical Code, ANSI/NFPA 70, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure.


EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE
ANTENNA LEAD IN WIRE
GROUND CLAMPS
ANTENNA DISCHARGE UNIT (NEC SECTION 810-20)
ELECTRIC SERVICE EQUIPMENT
GROUNDING CONDUCTORS (NEC SECTION 810-21)
GROUND CLAMP
POWER SERVICE GROUNDING ELECTRODE SYSTEM (NEC ART 250, PART H)
NEC - NATIONAL ELECTRICAL CODE

18. Power lines – An outdoor antenna should be located away from power lines.

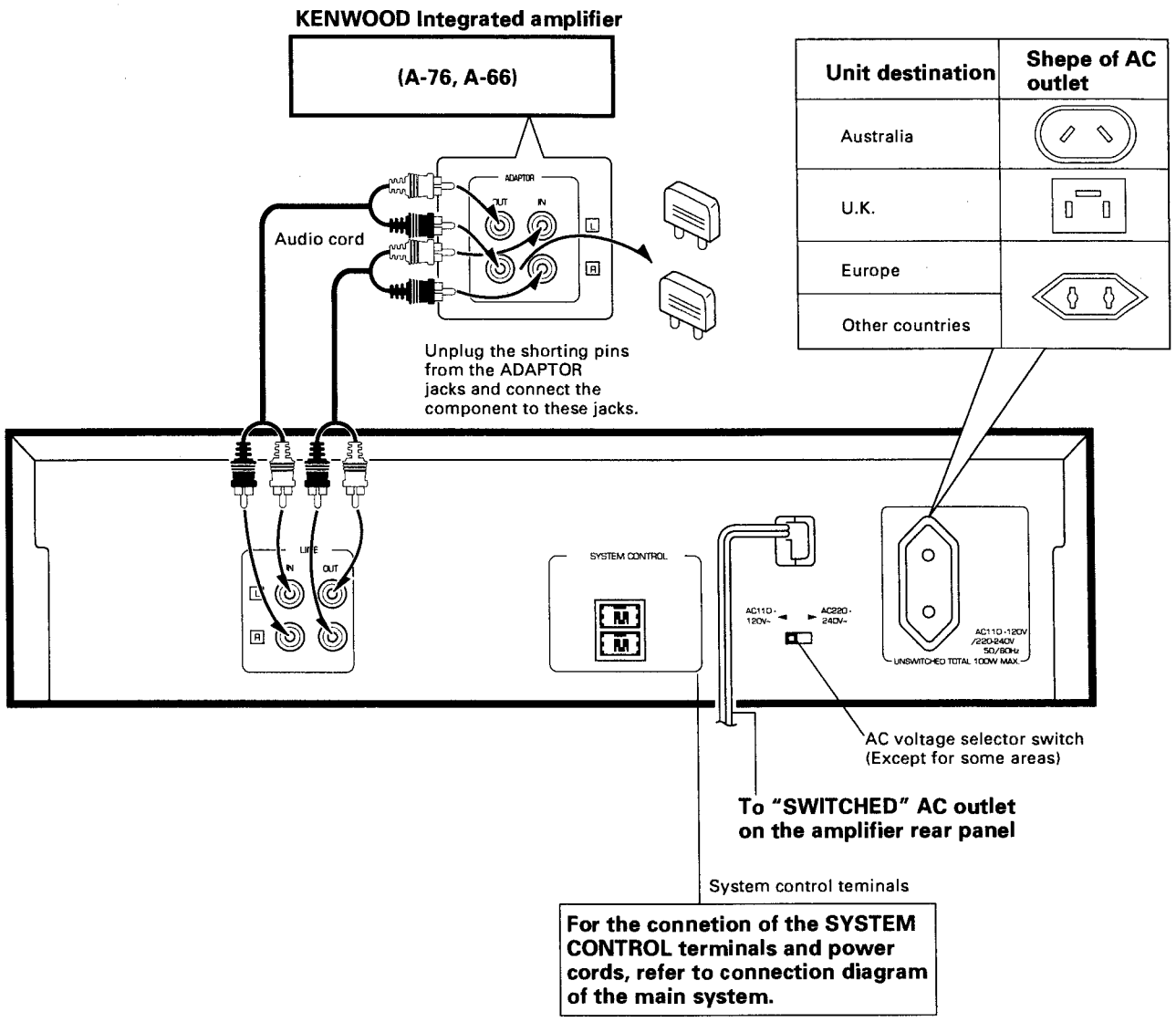
19. AC outlets – Do not connect other audio equipment with a power consumption larger than that specified to the AC outlet on the rear panel. Never connect other electrical units, such as an iron or toaster, to it to prevent fire or electric shock.



Notes:
1. Item 3 is not required except for grounded or polarized equipment.
2. Item 17 and 18 are not required except for units provided with antenna terminals.
3. Item 17 complies with UL in the U.S.A.

Systom connoctions

Make connection as shown below. When connecting the related system components, refer alse to the instruction manuals of the related components.
Do not plug in the power lead until all connections are completed.

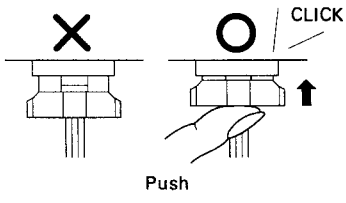


System control connection

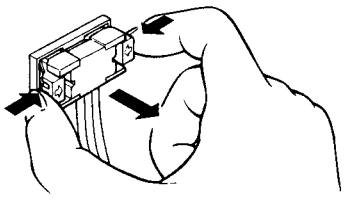
When connected to the main system, system operation such as remote control is made possible. For details, refer to the instruction manual of the main system.

If your amplifier or receiver is not equipped with the SYSTEM CONTROL terminals, do not connect anything to any SYSTEM CONTROL terminal.

Do not connect the unit in any system configuration other than specified.



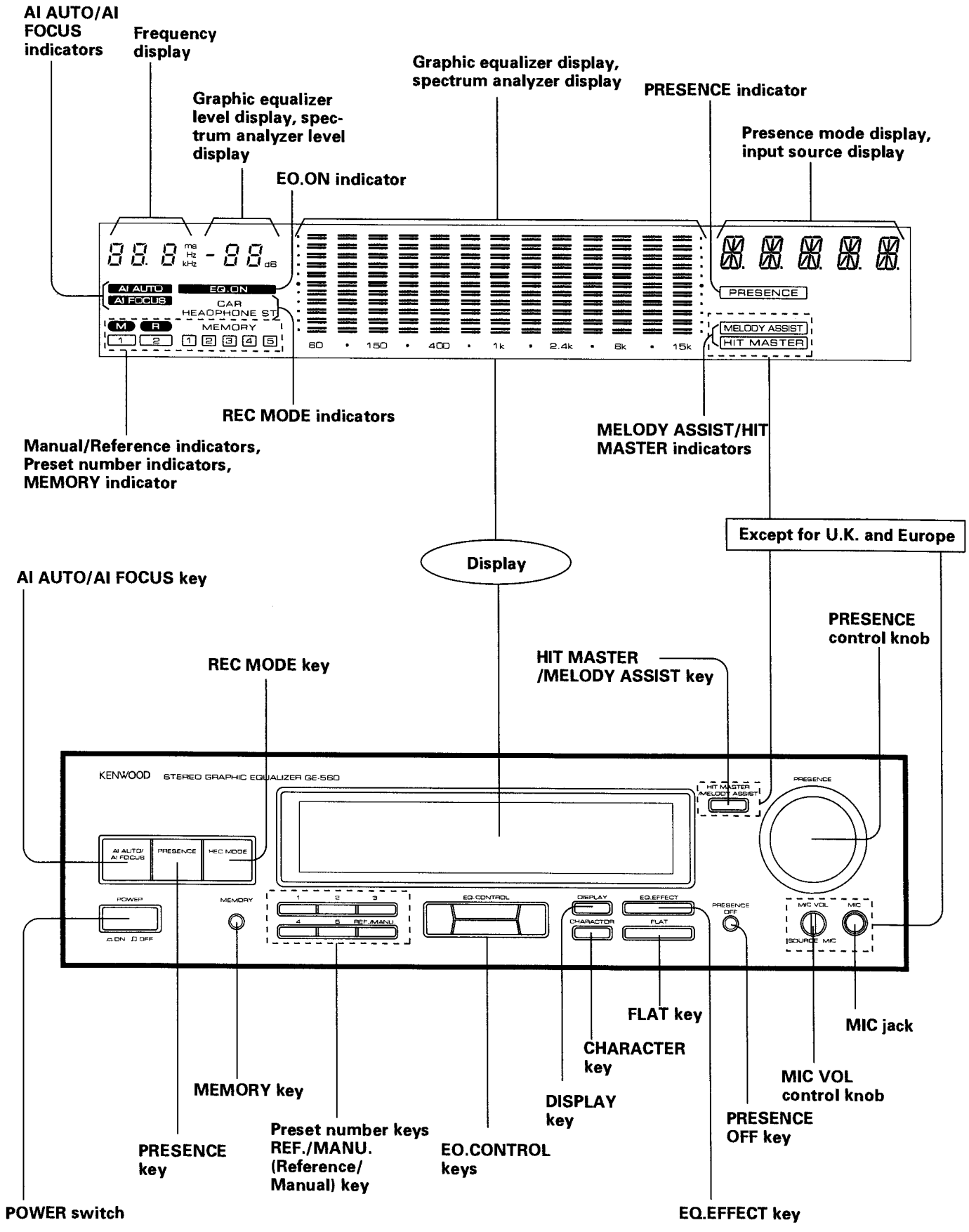
When unplugging the cord



- Be sure to insert the system control cord plugs fully into the SYSTEM CONTROL terminals.
- If the system control cord and audio cords are not connected properly, the automatic system governing remote control and system functions will not operate.

Notes:
1. Connect all cords firmly. If connections are loose, there could be loss of sound or noise produced.
2. When plugging and unplugging connection cords, be sure to first remove the power cord from the AC outlet. Plugging/unplugging connection cords without removal of the power cord can cause malfunctions or damage to the unit.
3. Do not connect up a power source which is larger than that indicated on the socket at the rear of the unit.

Controls and indicators



Operatien ef graphie equalizer

This unit is a near-professional type graphic equalizer which allows fine adjustments of frequency bands. It does not only provide acoustic compensation for the characteristics of your listening room, but also reproduces each music source with adequate tone using the following AI (Artificial Intelligence) features.

1. DEMO (Demonstration)
   Displays various equalizer curves visually in sequence together with the actual sound effect of each curve as audible demonstration.

2. AI-AUTO (available only for CD play)
   When playing a CD with the presence effect OFF, checks the contents recorded on the CD automatically, and sets the optimum equalizer pattern according to the CD.
   This feature is to be used when you need a simplified selection of playback equalizer pattern. (Refer to page 10.)

3. AI-FOCUS (available only for CD play)
   When playing a CD with the presence effect ON, checks the contents recorded on the CD with respect to the presence mode selected, and sets the optimum equalizer pattern and ASFC setting according to the CD and the presence mode selected. (Refer to page 11.)

4. AI-LINK (available for all input sources)
   When the presence mode is selected on the amplifier, optimum equalizer curve for this mode is selected automatically to enhance the presence effect.

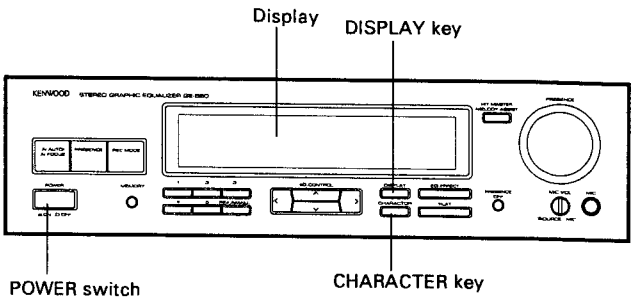
5. MANUAL/REFERENCE modes
   REFERENCE: Ten exemplary patterns have been preset at the factory. (Refer to page 12.)
   MANUAL: Five preset patterns have been factory-preset for this mode, too. In this mode, it is also possible to preset (assign) equalizer patterns created by the user in place of the factory presets.

6. CHARACTER
   In the spectrum analyzer display mode, the level of the music being played and changes of frequency distribution with four different patterns are displayed.

1: NORMAL	Normal spectrum analyzer display
2: SHOWER	Reversed normal spectrum analyzer display with the normal peak hold levels display
3. HORIZONTAL	Displays right and left levels with the frequency band in vertica axis and levol in horizontal axis.
4: SEE-THROUGH	Displays peak hold levels only.

7. REC MODE (for Car steroo, headphone stereo)
   The equalizer pattern displayed is also applied to the sound recorded on tape. In addition, recording equalizer curve "CAR", which records sound so that optimum balance is obtained when the tape is played on a car stereo, and recording equalizer curve "HEADPHONE ST.", which records sound so that optimum balance is obtained when the tape is played on a headphone stereo, are provided. By selecting one of these two REC MODES together with en equalizer pattern of AI-AUTO or MANUAL/REFERENCE, both effects can be applied to the recording, so that the tape allows to enjoy the sound of a listening room through a car stereo or headphone stereo. (Refer to page 15.)

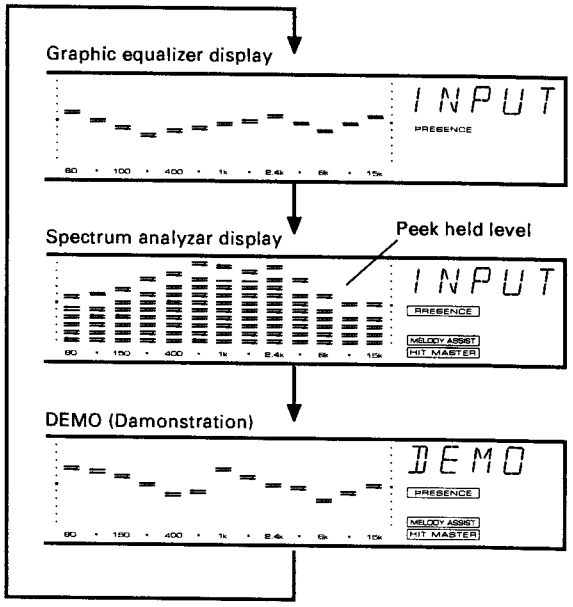
AI: Artificial Intelligence. The AI is capable of adjusting the tone automatically according to the source and music categorias.



Contents of display

The display mode changes every time the DISPLAY key is prassed.

- During recording on the cassette deck, this key switches only between the graphic equalizer display and spectrum analyzer display.



Graphic equalizer display

Shows how each frequency range is compensated.
The graphic equalizer display also appears for about 5 secends, even while the unit is in the spectrum analyzer display mode, when one of the following operations is performed.

Spectrum analyzer display

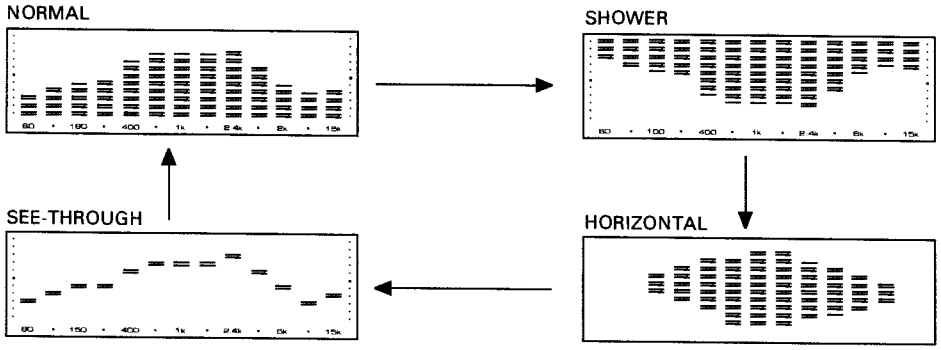
Displays the frequency distribution of the source being played to allow understanding at a glance.
The peak value of the varying level of each frequency range is held and displayed for about 0.5 second.

1. Switching power ON.
2. An operation key associated with an equalizer operation is pressed.

Character display

Press the CHARACTER key during the spectrum analyzer display mode.

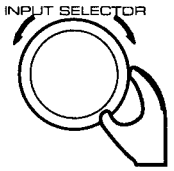
The display mode changas cvery time the CHARACTER key is pressed.



■ Demonstration procedure

This feature makes it possible to check the equalizer effects botb visually and audibly.

① Select the desired input source on the amplifier.



Play music.

Each press changes the display mode.

GRAPHIC → SPECTRUM ANALYZER → DEMO (Demonstration)

REFERENCE1 (R1) 1~5
REFERENCE2 (R2) 1~5
MANUAL (M) 1~5
REC MODE
AI LINK
AI AUTO
AI FOCUS

Selecting "DEMO" starts sequential demonstration.

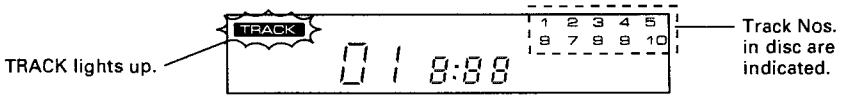
② Play the source.
③ Select DEMO with the DISPLAY key.
④ Demonstration is repeated in the following cycle.

- Press the [DISPLAY] key to stop demonstration.
- During AI LINK demonstration, the Surround mode also changes.
- If the demonstration is started while the unit is in the Surround mode, the Surround mode will be turned OFF during demonstration.

■ Operation of AI AUTO (for CD play only)

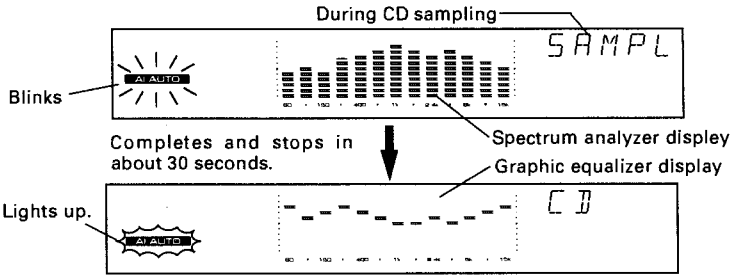
When playing a CD with the presence effect OFF, the equalizer curve suitable for a specific disc is set automatically by simply presing the AI AUTO key.

1 Place a disc in the CD player.



Check that the presence mode is OFF.

2 Press the AI AUTO key.



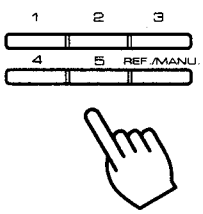
- Wait for about 30 seconds until [EQ.ON] and [AI AUTO] light up.

The playback starts automatically.

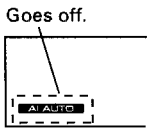
Note:
In step 2, the other keys than the [AI AUTO/AI FOCUS] and the [POWER] key do not operate.

To cancel AI AUTO

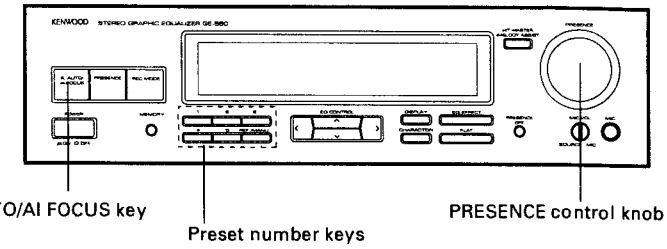
Cancellation during setting



Cancellation during play



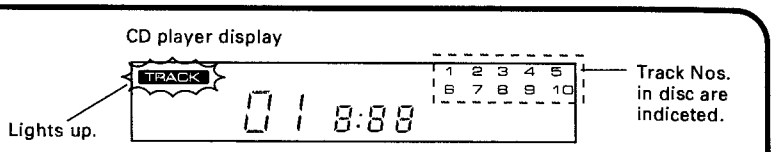
- If it is canceled during AI AUTO setting operation, the last pattern selected before is displayed.
- AI AUTO is canceled also when the disc tray is opened.



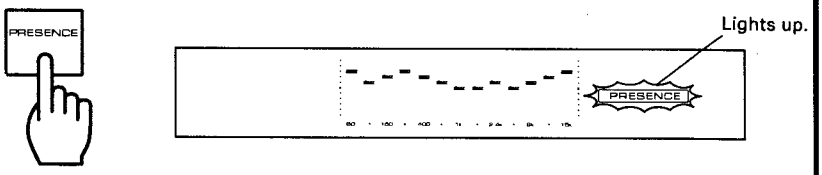
■ Oporation of AI FOCUS (for CD play only)

When the AI FOCUS key is pressed before playing a CD with the presence effect ON, the optimum equelizer curve is set automatically according to the presence mode selected end the centents of CD.

1 Place a disc in the CD player.



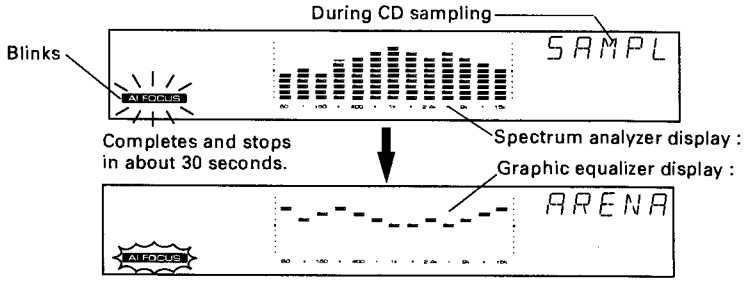
2 Turn the presence effect ON.



3 Select the presence mode.

4 Press the AI FOCUS key.

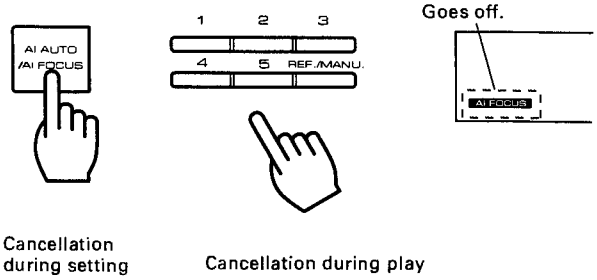
- Sound expansion and equalizer pattern are set according to the contents of CD.
- Wait for about 30 seconds until EQ.ON and AI FOCUS light up.
- Playback starts automatically.

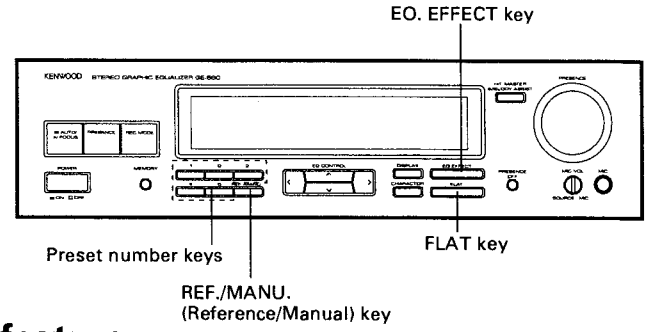


Note:
In step 4, the other keys than the AI AUTO/AI FOCUS and the POWER key do not operate.

To cancel AI FOCUS

- If it is canceled during AI FOCUS setting operation, the last pattern selected before is displayed.
- AI FOCUS is canceled also when the disc tray of the CD player is opened.

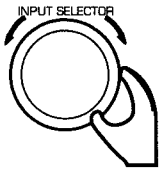




■ Operation of MANUAL/REFERENCE feature

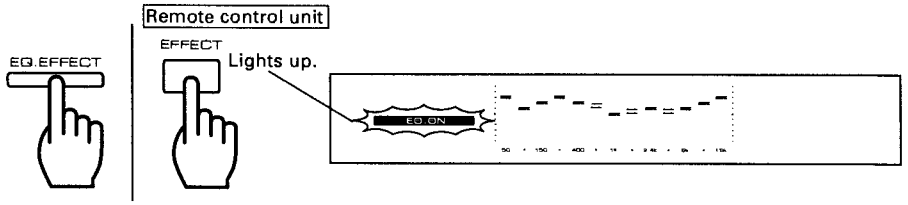
This feature ellows to recall one of fifteen preset equalizer patterns in a simple manner.
The equalizer patterns of the MANUAL mode (M-1 to M-5) are mainly fer use in playback with Surrond effect.

1 **Select the desired input source on the amplifier.**



2 **Play a music source.**

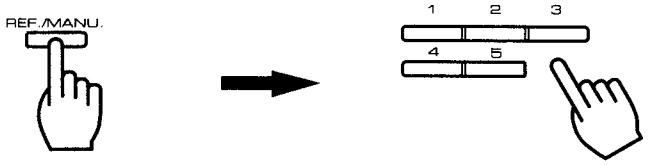
3 **Press the EQ. EFFECT key.**

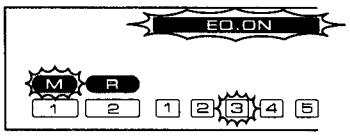


4 **Select an equalizer pattern.**

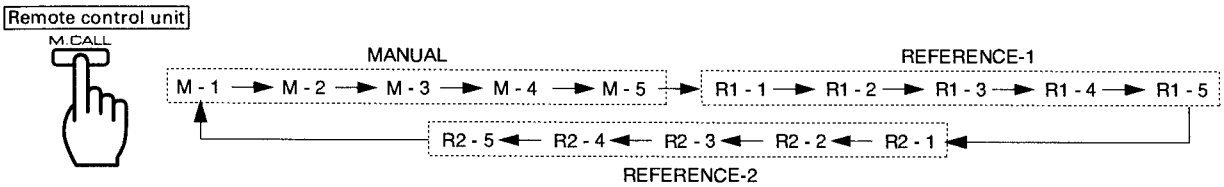
① **Set to MANUAL or REFERENCE 1, 2.**

② **Press the key fer the desired pattern.**
(Refer to the equalizer pattern list en page 13).



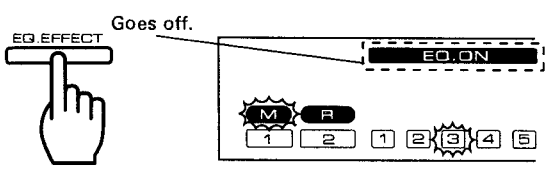


Example when "3" is selected in the MANUAL mode.



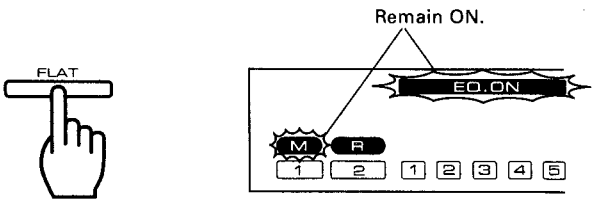
Patterns are switched every time the [M. CALL] key is pressed.

Te cancel equalizer effect :



- The pattern being displayed remains the same.

How to use FLAT key



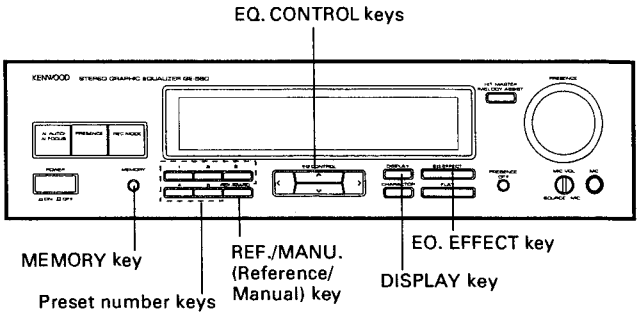
- Pressing the [FLAT] key flattens the curve.

■ Equalizer pattern list

15 kinds of preset equalizer patterns can be recalled easily. Select the optimum pattern.

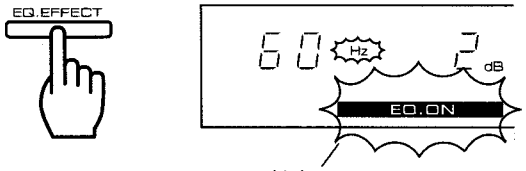
REFERENCE 1 (R-1 to R-5) equalizer patterns	
R1-1	(Popular, Fusion) Makes the fusion music or the vocal of pop music distinct while providing optimum compensation for the low and high frequencies.
R1-2	(Rock) Makes the vocal of rock music distinct while providing optimum compensation for the low and high frequencies.
R1-3	(Jazz) Makes the midrange frequencies in jazz music, including the vocal, piano and sax distinct, while providing optimum compensation for the low and high frequencies.
R1-4	(Classic) Provides a proper, polished classical music by compensating the low, midrange and high frequencies.
R1-5	(Movie) Makes the dialogues distinct while providing optimum compensation for the low and high frequencies.
REFERENCE 2 (R2-1 to 5) equalizer patterns	
R2-1	(Popular, Fusion) Reproduces crisp sound with distinct vocal and enhanced low and high frequencies.
R2-2	(Rock) Reproduces powerful sound with distinct vocal and enhanced low and high frequencies of the bass, guitar and drums.
R2-3	(Jazz) Makes the vocal, piano and sax more distinct while providing powerful, full bass and drum sound by enhancing the low and high frequencies.
R2-4	(Classic) Reproduces dynamic sound with a full scale through heavy low, powerful midrange and unrestrained high frequencies.
R2-5	(Movie) Makes the dialogues distinct while enhancing the low and high frequencies for a powerful sound with full atmosphere of presence.

MANUAL (M-1 te M-5) equalizer patterns **User-set curves cen be stored in this mode.**	
M1	(Popular, Fusion) Makes the fusion music or the vocal of pop music distinct while making the low and high frequencies clear by enhacing them.
M2	(Rock) Makes the vocal of rock music distinct and enhanced the low and high frequencies.
M3	(Jazz) Makes the jazz vocal and drums distinct, while making the low and high frequencies clear by enhancing them.
M4	(Classic) Attenuates the low frequencies and enhanced the midrange and high frequencies to provide wind instruments and vocals with unrestrained sound.
M5	(Movie) Makes the dialogues distinct by attenuating the low and high frequencies.

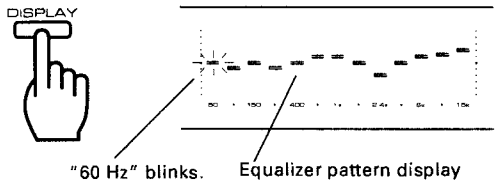


■ Fine adjustment of each frequency band (Graphic mode)

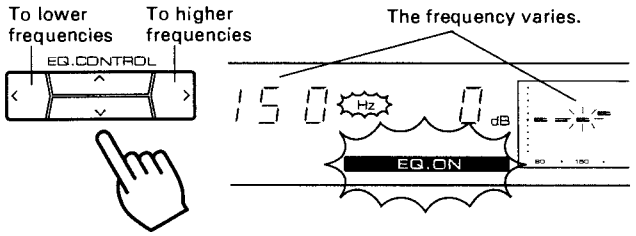
1 Set to the equalizer mode.



2 Select the Graphic mode.

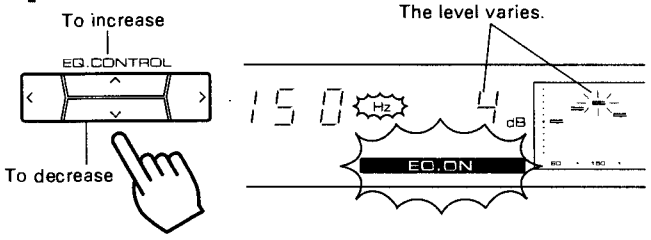


3 Select the frequency band to be adjusted.



Press the EQ. CONTROL keys.

4 Adjust its level.



Press the EQ. CONTROL keys.

5 For each frequency band to be adjusted, repeat steps 3 and 4 above.

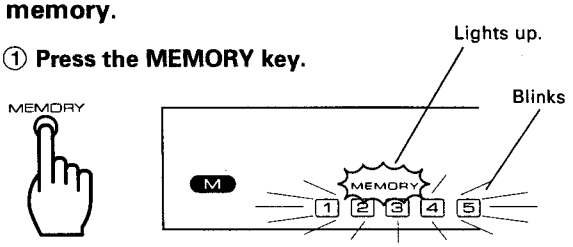
■ User-preset of user-created pattern (M-I te M-5)

1 Create a desired equalizer pattern.

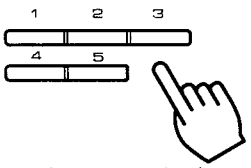
- Any equalizer pattern can be preset if it is being diplayed.
- The pattern cannot be preset during operation of AI AUTO or AI FOCUS.

2 Press the equalizer pattern in the manual memory.

① **Press the MEMORY key.**



② **Press one of the preset number keys.**



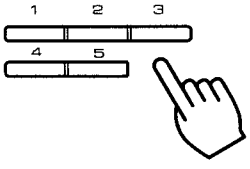
Press while MEMORY is lighted up.

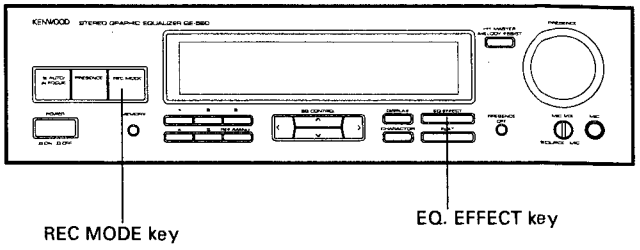
- Pattern is preset under the number of the numeric key pressed.
- Up to five patterns can be preset in the same manner.
- When a pattern has previously been preset under the numeric key pressed, the newly preset pattern replaces the previous pattern.

To return to the initial pattern (factory-preset patterns M-1 to M-5 on page 13) by clearing the user-preset pattern:

① **Select the MANUAL mode.**

② **Press the preset key where the pattern to be cleared is preset for more than 5 seconds.**

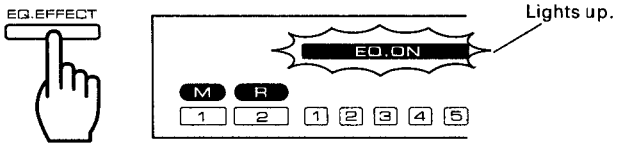




■ How to use the REC MODE key

Use the following function when recording tapes to be played on a car stereo or headphone storoo.

1 Set to the equalizer mode.

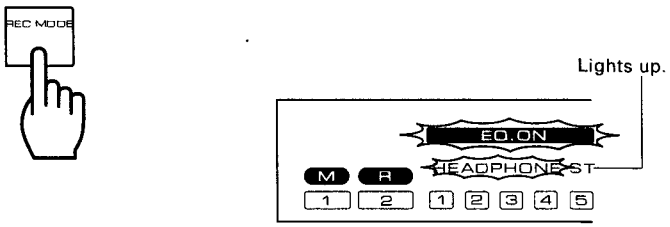


2 Select an input source and desired curve.

- Refer to page 10 to 14.

3 Select a REC MODE.

Each press switches the modes.



CAR (Recording for cer stereo) → HEADPHONE ST. (Recording for headphone stereo)

OFF (Curve before pressing REC MODE) ←

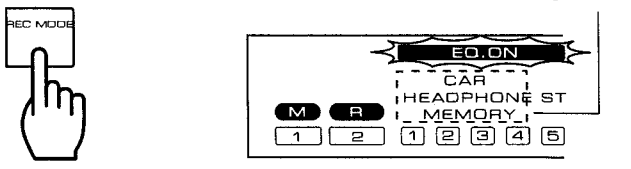
- The pattern for car stereo recording or headphone stereo recording is combined with the currently-selected equalizer pattern.
- Select OFF (indicator extinguished) when the unit is used as an ordinary equalizer or for general recording for other tapes than those played on a car stereo or a headphone stereo.

4 Play a music source and start recording.

- Refer to the Instruction Manual of the main system.

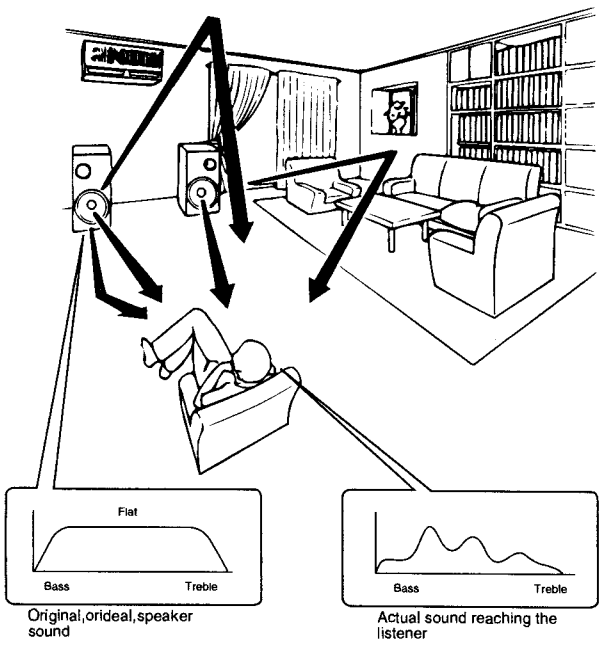
To cancel the REC MODE

Press the key to select OFF (indicator extinguished).



- The display shows the curve before synthesis again.

Functions of graphic equalizer



Original,orideal,speaker sound

Actual sound reaching the listener

Compensation for the audio characteristics of the listening room

The listening room may contain several objects. Some of them reflect sound and some absorb sound. thus the sound reaching your ears is considerably affected by these objects. In such cases, the graphic equalizer can be used to adjust the frequency response of the room for a flat response from low to high frequencies.

- Low frequencies are absorbed by beds, chairs, etc.
- High frequencies are absorbed by curtains, screens, etc.
- The room structure can cause the low frequencies to be unclear, or the sound level to increase or decrease depending on the frequency.

Adjustment of sound to your individual taste

When the reproduced sound contains several musical instruments and voices, the graphic equalizer allows you to enhance or attenuate the sound of specific instruments or voices.

Sound equalization

- **Super hass range (50 Hz)**
  When this control is moved up, the bass instrument (double bass, bass drums, or pipe organ, etc.) sound is increased. When the super bass sound is boomy, move this control down.

- **Bass range (150 Hz)**
  Usually, the listening room resonance frequency is in this range.
  To eliminate bass resonance, move this control down.

- **Mid-bass range (400 Hz)**
  This range is the basis of music. Whether the sound is rich or not, depends on this range. When the playback sound is not so good, move this control up.

- **Mid range (1 kHz)**
  When this control is moved up or down, the baritone or soprano voice is emphasized/de-emphasized. This range is related to the "presence" of music.

- **Mid-high range (2.4 kHz)**
  This range is related to stimulus and metallic sound. When this range is well compensated, vivid sound can be obtained.

- **High range (5 kHz)**
  This frequency range is related to the hardness of the sound. when this control is moved up, strings or brass instruments, such as flutes or piccolos, are emphasized. When the control is moved down, the sound will be more soothing.

- **Super high range (15 kHz)**
  This frequency range is related to the details of the music. When this control is moved up, super high frequency instruments, such as triangles or cymbals, are emphasized, resulting in wide sound and echoes.

Concerning presence

The presence effect allows to enjoy the sound ambience of concert halls and movie theaters easily. When used together with the graphic equalizer, this effect can provide more realistic feeling of presence. For details, please read the operation procedures on the subsequent pages.

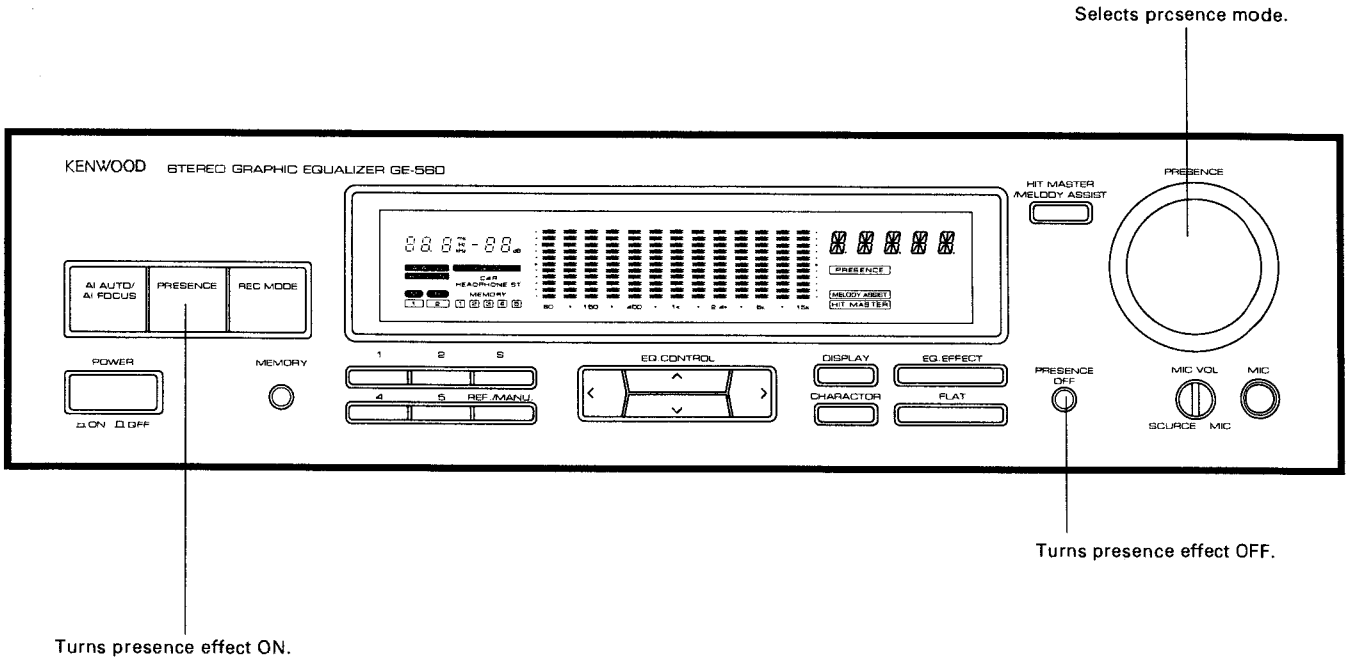
PRESENCE mode

Five ambience modes (Arena, Jazz Club, Stadium, Game, Movie) are preset.

AI LINK equalizer effect
When the presence effect is turned ON, an equalizer pattern matching the presence scund field is created automatically to enhance the presence effect.

PRESENCE REC

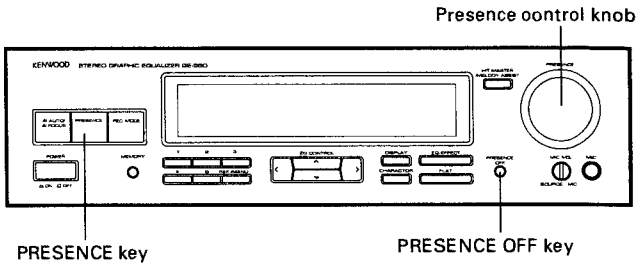
When recording music on a tape, the presence effect can be recorded in stereo. This makes it possible to enjoy the presence sound through a headphone stereo or car stereo.



Types and results of presence modes	
ARENA	Reproduces the sound field of a hall with many high-frequency reflections and long reverberation period.
JAZZ CLUB	Reproduces a jazz house where the sound of cymbals echoes.
STADIUM	Reproduces the ambience of reflections proper to sport stadiums by simulating the sound of PA speakers.
GAME	Enhances the sound effects of video games to reproduce powerful sound with an atmosphere of presence.
MOVIE	Reproduces the sound effect of movies.

■ Playback with presence effect

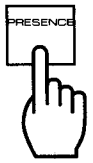
Five presence modes are preset, allowing enjoyment of various sound fields where music is played.



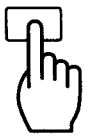
1 **Play music.**

2 **Turn the presence effect ON.**

Press the PRESENCE key.

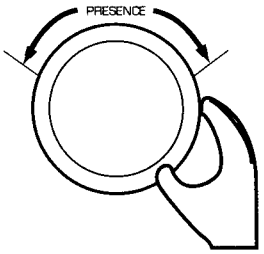


Remote control unit



3 **Select a presence mode.**

Operating the control displays the current presence mode. Operate the control to change the presence modes in sequence.



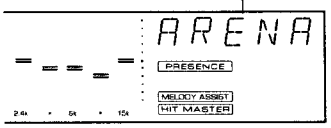
◄► When the control is turned on the main unit

----► When the control is pressed on the remote control unit

ARENA ◄► JAZZ CLUB ◄► STADIUM

MOVIE ◄ GAME

Mode name display



Remote control unit

- For the kinds and effects of the presence modes, refer te page 17.

■ To turn presence effect OFF

Press the PRESENCE OFF key.

Remote control unit

- Be sure to turn the presence effect OFF when it is not required.

■ To record with presence effect

1 **Select a presence mode.**

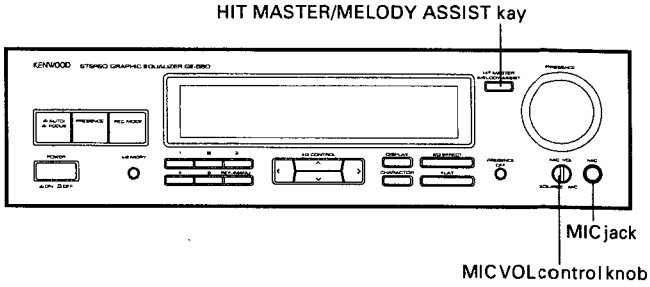
2 **Select the desired input source on the amplifier.**

3 **Play the music source and start recording.**

Let's sing (exeept fer U.K. and Eurepe)

You can enjoy singing along with music using a regular music tape or CD.

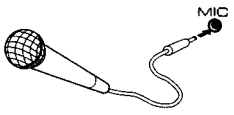
The audio input thorough the microphone is not displayed on the spectrum analyzer display.
The microphone audio is not mixed during CD direct playback.
When the microphone is not to be used, be sure to set the MIC VOL control fully counterclockwise.



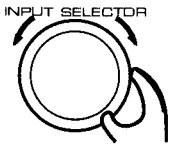
■ Regular MIC MIXING

Match the mic sound with the music source so you can sing a duet with your favorite singer.

1 Connect the microphone.



2 Select the desired input source on the amplifier.



3 Play the music piece.

4 Sing together with the music piece.

5 Adjust the mic sound volume.

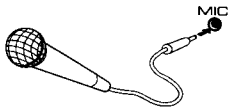
When using the mic only.

Stop the music and set the MIC VOL knob to the right side.

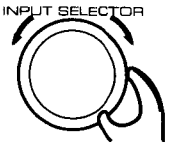
■ Karaoke with HIT MASTER

The vocal parts of the music piece ere muted out so that you become the loading singer.

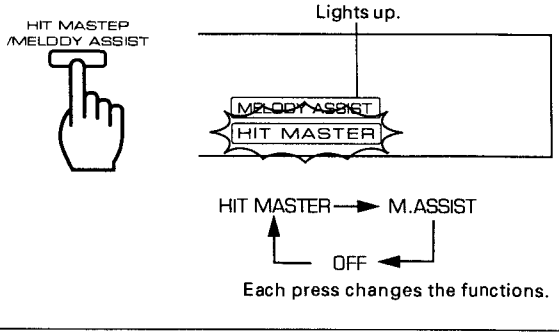
1 Connect the microphone.



2 Select the desired input source on the amplifier.



3 Set the HIT MASTER to ON.



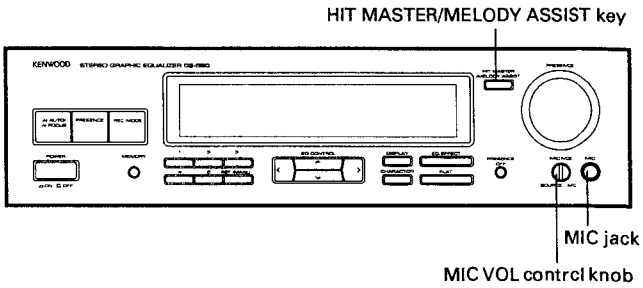
Each press changes the functions.

4 Play the music piece.

5 Sing together with the music piece.

6 Adjust the mic sound volume.

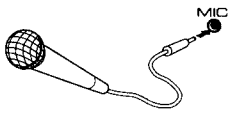
Note:
Depending on the music source, it might not be possible to erase the vocal parts.



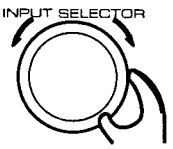
■ Karaoke with MELODY ASSIST

When you sing into the mic, your voice is heard.
When you stop singing, the original singer's voice is heard.

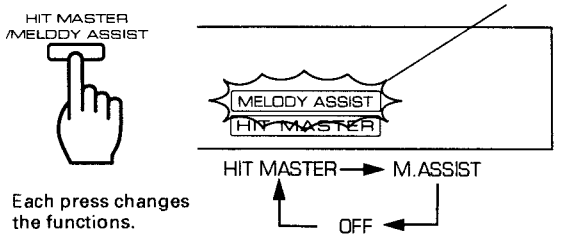
1 **Connect the microphone.**



2 **Select the desired input source on the amplifier.**



3 **Set the MELODY ASSIST to ON.**



4 **Play the music piece and sing together with the music piece.**

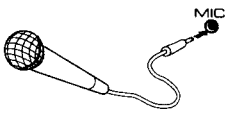
5 **Adjust the mic sound volume.**

Notes:
1. If the voice at the mic is low, it might not be possible to lower the original singer's voice.
2. When MELODY ASSIST is ON, even if the knob is set to the SOURCE side, the original singer's voice may become low whenever a voice enters from the mic.

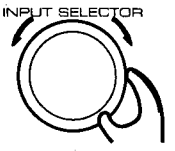
■ Song Recording

Record your own voice with the original orchastra in the hackground.

1 **Connect the microphone.**



2 **Select the desired input source on the amplifier.**



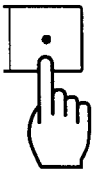
3 **Execute steps for "Ordinary recording" up to step 5.**

- Refer to the Instruction Manual of the maim system.

4 **Adjust the mic sound volume.**

- Select the HIT MASTER or MELODY ASSIST function as required.

5 **Start recording.**



6 **Play the music piece.**

7 **Sing together with the music pioce.**

8 **Stop recording.**

In caso of difficulty

What appears te be a malfunction may not always be serious. If your unit should net perform as expected, consult the table below to see if the problem can be corrected befere seeking help from yeur dealer or service representaive.

Symptom	Cause	Remedy
Power fails to turn on.	• Poor connection of the power cord plug. • The power cord plug is connected to the SWITCHED outlet of the amplifier, and the power switch is turned off.	• Connect the power cord plug securely. • Turn on the power switch of the amplifier.
Sound is not output.	• The input and output connections are reversed.	• Connect the input and output correctly.

Notes:

1. This system is microprocessor-controlled, so malfunction may occur due to external noise or interference noise. In such a case, unplug the power cord, plug it and turn power on again.
2. Do not use contact cleaners because they could cause a malfunction. Be especially careful against contact cleaners containing oil, for they may deform the plastic components.

Specifications

⚠ **Caution: Read this page carefully to ensure safe operation.**

Performanco

Equalizer charactoristic variable range ..... **±10 dB**
Centor frequencies (Hz) **50, 150, 400, 1k, 2.4k, 5k, 15k**

Total harmonic distortion (at 1 kHz, flat) **0.05%**
Gain ..... **0 dB**
Signal to noiso ratio (IHF'85) ..... **100 dB**
Input impodanco ..... **47 kΩ**
Output impodance ..... **2.2 kΩ**

Ooneral

Power consumption **10W**
AC outlets (excopt for Australia)
UNSWITCHED ..... **1 (100W max.)**
Dimensions **W:350mm**
H:98mm
D:357mm
Weight (Net) ..... **3.4 kg**

Note:
KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

KENWOOD